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10/643,490

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Necdet Uzun

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EXAMINER

BATES, KEVIN T

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/643,490	Applicant(s) UZUN ET AL.	
	Examiner KEVIN BATES	Art Unit 2456	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period **will** apply and **will** expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply **will**, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 June 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-66 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-66 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Amendment

This Office Action is in response to a communication received on June 24, 2009.

Claims 1-66 are pending in this application.

Response to Arguments

Applicant's arguments, filed June 24, 2009, with respect to the rejection(s) of claim(s) 1-66 under 35 USC 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made.

This Final rejection replaces the final rejection made on March 24, 2009.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4, 6-13, 15-18, 21-23, 26-37, 39-46, 49-54, and 57-66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Enomoto (2003/0076781) in view of Linville (6026075) (Applicant's IDS), and in further view of Zimmermann (6910079).

Regarding claims 1, 46, and 54, Enomoto teaches a method comprising:

receiving information indicating a need to change an amount of data being transmitted through a first media access control (MAC) device to a client of the first MAC device (¶¶237-238; 247-248);

forming a message including an indication to a second MAC device to change a rate at which the second MAC device transmits data, wherein said forming the message uses the information indicating the need to change the amount of data being transmitted to the client (¶¶237-239); and

transmitting the message to the second MAC device over a network (¶¶239).

Enomoto does not explicitly indicate that the client of the first MAC device determines the receiving rate is exceeding a set threshold when determining a need to change the amount of data being sent over the network, changing the rate at which the second MAC device transmits to the client, or having the total bandwidth allocation of the first MAC device unaffected.

Linville teaches a system that the first MAC device determines the receiving rate is exceeding a set threshold when determining a need to change the amount of data being sent over the network (Col. 8, lines 15 – 40), changing the rate at which the second MAC device transmits to the client (Col. 9, lines 15 – 25), or having the total bandwidth allocation of the first MAC device unaffected (Col. 9, lines 52 - 65).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use more detailed traffic monitoring on a per recipient basis to better predict possible buffer overloads while having a smaller effect on other traffic flows.

The combination of Linville and Enomoto teaches that the buffer threshold of the packets going to the client are considered when determining a need to change the rates, but the combination fails to disclose the client determines a rate exceeding a set threshold and notifying the MAC device of a need to change the rate.

Zimmermann teaches a system for monitoring data rates and buffer threshold where the client monitors the clients' own buffer threshold and data rate and notifies the network nodes upstream a need to change the sending rate (Col. 4, lines 6 – 36).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include Zimmermann's teaching of a client device can also participate and notify the needs of rate changes in the network transmission system of Enomoto to allow the client device to prevent buffer overflow at the receiving buffers of the client.

Regarding claims 18 and 35, Enomoto teaches an apparatus comprising:

a first media access control (MAC) device operable to be coupled to a network, the first MAC device including control logic configured to prepare a message for transmission on the network including an indication to change a rate at which another MAC device transmits data (§§237-238; 247-248); and

a MAC client coupled to the first MAC device (Figure 1, elements C1-C4).

Enomoto does not explicitly indicate that the client of the first MAC device determines the receiving rate is exceeding a set threshold when determining a need to change the amount of data being sent over the network.

Enomoto does not explicitly indicate that the client of the first MAC device determines the receiving rate is exceeding a set threshold when determining a need to change the amount of data being sent over the network, changing the rate at which the second MAC device transmits to the client, or having the total bandwidth allocation of the first MAC device unaffected.

Linville teaches a system that the first MAC device determines the receiving rate is exceeding a set threshold when determining a need to change the amount of data being sent over the network (Col. 8, lines 15 – 40), changing the rate at which the second MAC device transmits to the client (Col. 9, lines 15 – 25), or having the total bandwidth allocation of the first MAC device unaffected (Col. 9, lines 52 - 65).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use more detailed traffic monitoring on a per recipient basis to better predict possible buffer overloads while having a smaller effect on other traffic flows.

The combination of Linville and Enomoto teaches that the buffer threshold of the packets going to the client are considered when determining a need to change the rates, but the combination fails to disclose the client determines a rate exceeding a set threshold and notifying the MAC device of a need to change the rate.

Zimmermann teaches a system for monitoring data rates and buffer threshold where the client monitors the clients' own buffer threshold and data rate and notifies the network nodes upstream a need to change the sending rate (Col. 4, lines 6 – 36).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include Zimmermann's teaching of a client device can also participate and notify the needs of rate changes in the network transmission system of Enomoto to allow the client device to prevent buffer overflow at the receiving buffers of the client.

Regarding claims 4, 21, and 37, Enomoto teaches the method of claims 1, 18 and 35 wherein the network includes a first datapath for transmitting data from the first MAC device to the second MAC device, and wherein the network includes a second datapath for transmitting data from the second MAC device to the first MAC device (Figure 1, where the ring network travels in both directions).

Regarding claims 6, 26, 39, 49, and 57, Enomoto teaches the method of claims 1, 18, 35, 46, and 54.

Enomoto does not explicitly indicate determining an extent to which a data buffer associated with the client of the first MAC device contains data; and preparing the information indicating the need to change the amount of data being transmitted through the first MAC device to the client of the first MAC device based on the extent to which the data buffer associated with the client of the first MAC device contains data.

Zimmermann teaches a system for providing feedback into the network to slow down transfer rates, where the receiving client is monitoring its buffer threshold and initiating the indication (Col. 4, lines 6 – 36).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use allow the client to send a congestion notice back into the network to prevent buffer overflows occurring on the receiving client.

Regarding claim 7 and 58, Enomoto teaches the method of claims 6 and 54 further comprising: transmitting, to the first MAC device, the information indicating the need to change the amount of data being transmitted through the first MAC device to the client of the first MAC device (¶237-238; 247-248).

Regarding claim 8, 27, 40, 50 and 59, Enomoto teaches the method of claims 1, 18, 35, 46, and 54 wherein the message further includes a MAC device address (¶238).

Regarding claim 9, 28 and 60, Enomoto teaches the method of claims 8, 27, and 59 wherein the MAC device address corresponds to one of the first MAC device, the second MAC device, and another MAC device (¶238).

Regarding claims 10, 29, 41, 51, and 61, Enomoto teaches the method of claims 1, 18, 35, 46, and 54 wherein the indication to the second MAC device to change the rate at which the second MAC device transmits data includes at least one of: a MAC device address, a data transmission rate, a ramp factor, and a flag (¶238).

Regarding claims 11, 30, 42, and 62, Enomoto teaches the method of claims 1, 18, 35, and 54 wherein the indication to the second MAC device to change the rate at which the second MAC device transmits data includes a data transmission rate, the method further comprising: determining the data transmission rate (¶238).

Regarding claim 12 and 63, Enomoto teaches the method of claims 11 and 54 wherein the determining the data transmission rate further comprises at least one of: calculating the data transmission rate; selecting a value for the data transmission rate; and determining a ramp factor (§238).

Regarding claims 13 and 64, Enomoto teaches the method of claims 1 and 54 further comprising: transmitting the message from the second MAC device to a third MAC device (§214, where the congestion frame gets passed along the entire ring network).

Regarding claims 15, 31, 43, 52 and 65, Enomoto teaches the method of claims 1, 18, 35, 46, and 54 wherein the information indicating the need to change the amount of data being transmitted through the first MAC device to the client of the first MAC device includes at least one of: a data transmission rate, a counter value, a message indicating that a buffer threshold has been exceeded, and a signal from the client of the first MAC (§238).

Regarding claim 16, 34, 45, 53, and 66, Enomoto teaches the method of claim 1 wherein: the information indicating the need to change the amount of data being transmitted through the first MAC device to the client of the first MAC device further comprises at least one of: information indicating the need to reduce the amount of data being transmitted, and information indicating the need to increase the amount of data being transmitted; and the indication to the second MAC device to change the rate at which the second MAC device transmits data further comprises at least one of: an indication to the second MAC device to reduce the rate at which the second MAC

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device transmits data, and an indication to the second MAC device to increase the rate at which the second MAC device transmits data (§§237-238; 247-248).

Regarding claim 17, Enomoto teaches the method of claim 1 encoded in a computer readable medium as instructions executable on a processor, the computer readable medium being one of an electronic storage medium, a magnetic storage medium, and an optical storage medium (§§134).

Regarding claim 22, Enomoto teaches the apparatus of claim 21 wherein the first MAC device is further operable to transmit the message to the second MAC device (§§238-239).

Regarding claim 23, Enomoto teaches the apparatus of claim 21 wherein the second MAC device is configured to transmit the message to a third MAC device (§§238-239; 214, where the congestion frame gets passed along the entire ring network).

Regarding claim 32, Enomoto teaches the apparatus of claim 18 wherein MAC client further comprises packet processing circuitry coupled to the buffer (§§134).

Regarding claims 33 and 44, Enomoto teaches the apparatus of claims 32 and 35 wherein the packet processing circuitry includes the buffer control circuitry (§§134).

Claims 2-3, 5, 14, 19-20, 24-25, 38, 47-48, and 55-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Enomoto in view of Linville and Zimmerman, and in further view of Knightly (20030163593).

Regarding claims 2-3, 5, 14, 19-20, 24-25, 38, 47-48, and 55-56, Enomoto teaches the method of claims 1, 18, 21, and 35.

Enomoto does not explicitly indicate wherein the network is a metropolitan area network (MAN), a resilient packet ring (RPR) network, or that the message is a resilient packet ring (RPR) fairness message.

Knightly provides a teaching of handling congestion in a ring network that is implemented in a a metropolitan area network (MAN) (Paragraph 5, lines 1-2), a resilient packet ring (RPR) network (Paragraph 7), and that the message is a resilient packet ring (RPR) fairness message (Paragraph 10).

It would have been obvious to one of ordinary skill in the art at the time the invention was made that Enomoto's congestion system could be implemented in the RPR system and use fairness messages to take advantage of the RPR standard protocol messages, while keeping the queues and flow classification of Enomoto.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KEVIN BATES whose telephone number is (571)272-3980. The examiner can normally be reached on M-F 8 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on (571) 272-3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/KEVIN BATES/
Primary Examiner, Art Unit 2456